

1. (Currently Amended) A method of altering the substrate specificity of a phosphoinositide-dependent protein kinase 1 (PDK1) wherein ~~the~~ said PDK1 is exposed to an interacting polypeptide which comprises the amino acid sequence SEQ ID NO:25: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr wherein Zaa represents a negatively charged amino acid residue.

2. - 3. (Canceled)

4. (Currently Amended) A method of phosphorylating a residue corresponding to the italicized residue in a substrate polypeptide with an amino acid sequence corresponding to the consensus sequence SEQ ID NO:30: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Ser/*Thr*-Phe/Tyr wherein the substrate polypeptide is exposed to (1) a preparation comprising a PDK1 and ~~a~~ an interacting polypeptide which comprises the amino acid sequence SEQ ID NO:25: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr or (2) a PDK1 derivable by a method of altering the having altered substrate specificity of ~~phosphoinositide-dependent protein kinase 1 (PDK1)~~ wherein the ~~said~~ PDK1 having altered substrate specificity is provided by exposing PDK1 to the interacting polypeptide is exposed to a polypeptide which comprises the amino acid sequence SEQ ID NO:25: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Zaa-Phe/Tyr is used wherein Zaa represents a negatively charged amino acid residue.

5. (Currently Amended) A method of phosphorylating a protein kinase C-related protein kinase-2 (PRK2) ~~PRK2~~ wherein ~~the~~ said PRK2 is exposed to PDK1.

6. - 11. (Canceled)

12. (Currently Amended) A method of altering the substrate specificity of phosphoinositide-dependent protein kinase 1 (PDK1) wherein ~~the~~ said PDK1 is exposed to a compound identified ~~or identifiable~~ by a method which comprises measuring the ability of the compound to increase the ability of PDK1 to phosphorylate a residue corresponding to the italicized residue in a polypeptide with an amino acid sequence corresponding to the consensus sequence SEQ ID NO: 30: Phe/Tyr-Xaa-Xaa-Phe/Tyr-Ser/Thr-Phe/Tyr ~~of claim 11.~~

13. - 22. (Canceled)

23. (Currently Amended) A method according to claim 1 wherein ~~the~~ said PDK1 is exposed to ~~the~~ said interacting polypeptide in a cell ~~as defined in claim 22,~~ said cell comprising a recombinant nucleic acid suitable for expressing PDK1 and a recombinant nucleic acid suitable for expressing said interacting polypeptide .

24. - 44. (Canceled)

45. (New) A method according to claim 1 wherein said PDK1 has at least 65% amino acid identity with SEQ ID NO:31 and retains the enzyme activity of PDK1.

46. (New) A method according to claim 4 wherein said PDK1 has at least 65% amino acid identity with SEQ ID NO:31 and retains the enzyme activity of PDK1.

47. (New) A method according to claim 5 wherein said PDK1 has at least 65% amino acid identity with SEQ ID NO:31 and retains the enzyme activity of PDK1.

48. (New) A method according to claim 12 wherein said PDK1 has at least 65% amino acid identity with SEQ ID NO:31 and retains the enzyme activity of PDK1.

49. (New) A method according to claim 47 wherein said PRK2 comprises SEQ ID NO: 32.

50. (New) A method according to claim 45 wherein said interacting polypeptide has from 10 to 100 amino acids.

51. (New) A method according to claim 46 wherein said interacting polypeptide has from 10 to 100 amino acids.